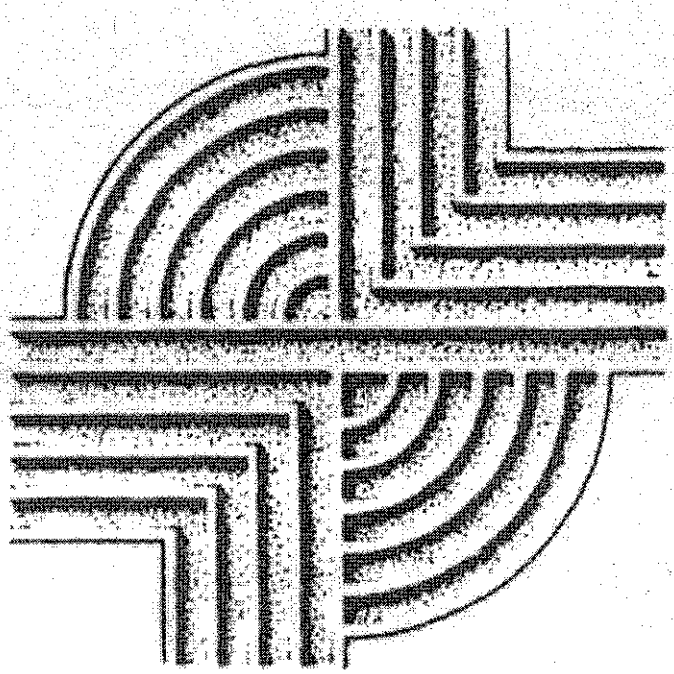
CULTURAL RESOURCES SURVEY OF THE MARLBORO INDUSTRIAL 69kV DISTRIBUTION SUBSTATION, MARLBORO COUNTY, SOUTH CAROLINA



CHICORA RESEARCH CONTRIBUTION 304

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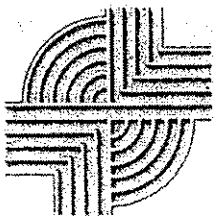

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ABSTRACT

This report provides the results of a cultural resources investigation of the proposed Marlboro Industrial 69kV Distribution Substation, situated in central Marlboro County, about a mile north of Bennettsville. The study was conducted by Dr. Michael Trinkley of Chicora Foundation for Central Electric Power Cooperative. The work is intended to assist the Cooperative comply with Section 106 of the National Historic Preservation Act and the regulations codified in 36CFR800.

Historically settlement in the Marlboro area focused on the Welch Neck, the Pee Dee River, and Crooked Creek. A number of mills were constructed on Crooked Creek by the Civil War, with many of these early mills still being evidenced by the number of lakes or mill ponds in the project area. Historic maps, however, do not indicate that the proposed substation is situated on or adjacent to any of these mill sites.

The proposed project involves the construction of a substation on a lot measuring about an acre in size situated between several large industrial developments. Much of the surrounding area, however, is still under cultivation. As a result, the area of potential effect (APE) for this project was defined as 1.0 mile. No previously recorded archaeological sites were identified in the area, although a previous SHPO reconnaissance study identified four structures worthy of additional study. Our architectural survey revealed that three of these four sites were no longer in existence and the fourth had been so altered as to result in a complete loss of integrity.

The archaeological survey consisted of shovel testing at 50 foot intervals along transects laid out at 60 foot intervals through the tract. At the time of the survey the study tract, while staked, was still under cultivation. As a result, surface visibility throughout the study area was good. No archaeological sites were identified during the study.

It is possible that archaeological remains may be encountered in the project area during construction. Construction crews should be advised to report any discoveries of concentrations of artifacts (such as bottles, ceramics, or projectile points) or brick rubble to the project engineer, who should in turn report the material to the State Historic Preservation Office or to Chicora Foundation (the process of dealing with late discoveries is discussed in 36CFR800.13(b)(3)). No construction should take place in the vicinity of these late discoveries until they have been examined by an archaeologist and, if necessary, have been processed according to 36CFR800.13(b)(3).

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INTRODUCTION

The investigation of the proposed 1 acre Marlboro Industrial 69kV Distribution Substation was conducted by Dr. Michael Trinkley of Chicora Foundation, Inc. for Mr. Robert Kidd of Central Electric Power Cooperative. The substation lot is situated in central Marlboro County, about a mile north of Bennettsville on the east side of SC 38 west of Crooked Creek (Figure 1). This particular area of Marlboro County has historically been rural and devoted almost exclusively to agriculture. Recently a number of small industrial complexes have been developed and these have resulted in the need for additional electrical capacity. Today this general area is a mixture of old farms, new subdivision roads, and mixed industrial and commercial development. This work was conducted to assist Central Electric Power Cooperative comply with Section 106 of the National Historic Preservation Act and the regulations codified in 36CFR800.

The tract is roughly square, measuring about 210 feet on a side (for a total of about 1 acre). The substation lot is situated in a cultivated field lying between the Musani plant under construction to the west and the Ox Bodies plant to the west, about 1,500 feet east of SC 38 and 800 feet east of Rogers Drive (Figure 2). At the time of the survey the substation lot was clearly staked out.

Chicora was requested to survey the substation by Central Electric Power Cooperative on August 31, 2000. The field investigations were conducted on September 8 and required 8 person hours. The architectural survey was conducted by the author and required 3 person hours on September 8.

Although there is considerable mixed commercial/industrial development taking place in the project area, much of the project area retains a rural character. As a result, we have defined the area of potential effect (APE) for this project to be 1.0 mile. Nevertheless, it is unlikely that the proposed substation will introduce "visual, audible, or atmospheric elements" even within this one-mile radius, given that it is flanked by industrial tracts.

The statewide archaeological site files held by the South Carolina Institute of Archaeology and Anthropology were examined by Mr. Tom Covington on for information pertinent to the project area. Although there were a number of archaeological sites in the general area, none were recorded on or adjacent to the proposed tract or within the defined 1 mile area of potential effects (APE).

In addition, the South Carolina Department of Archives and History GIS database was reviewed. There are no National Register of Historic Places buildings, districts, structures, sites, or objects on or within a mile of the project area. There are no recorded architectural sites within a mile of the development tract. There were, however, four sites identified during a State Historic Preservation Office (SHPO) reconnaissance of the area as worthy of additional investigation.

We anticipate that the development will involve extensive clearing and grubbing, various soil preparation activities, heavy equipment stagging and movement, perhaps a temporary increase in traffic on SC 38 or perhaps on the section of Rogers Drive connecting the substation lot with SC 38, the potential for increased dust levels during construction, and increased noise levels for short durations associated with the various construction activities. Again, these impacts are likely far less severe than those associated with the nearby industrial developments (which did not receive any compliance review as nearly as we have been able to determine). In addition, any construction affects associated with the substation will be temporary.

This report details the investigation of the project area undertaken by Chicora Foundation and the results of that investigation.

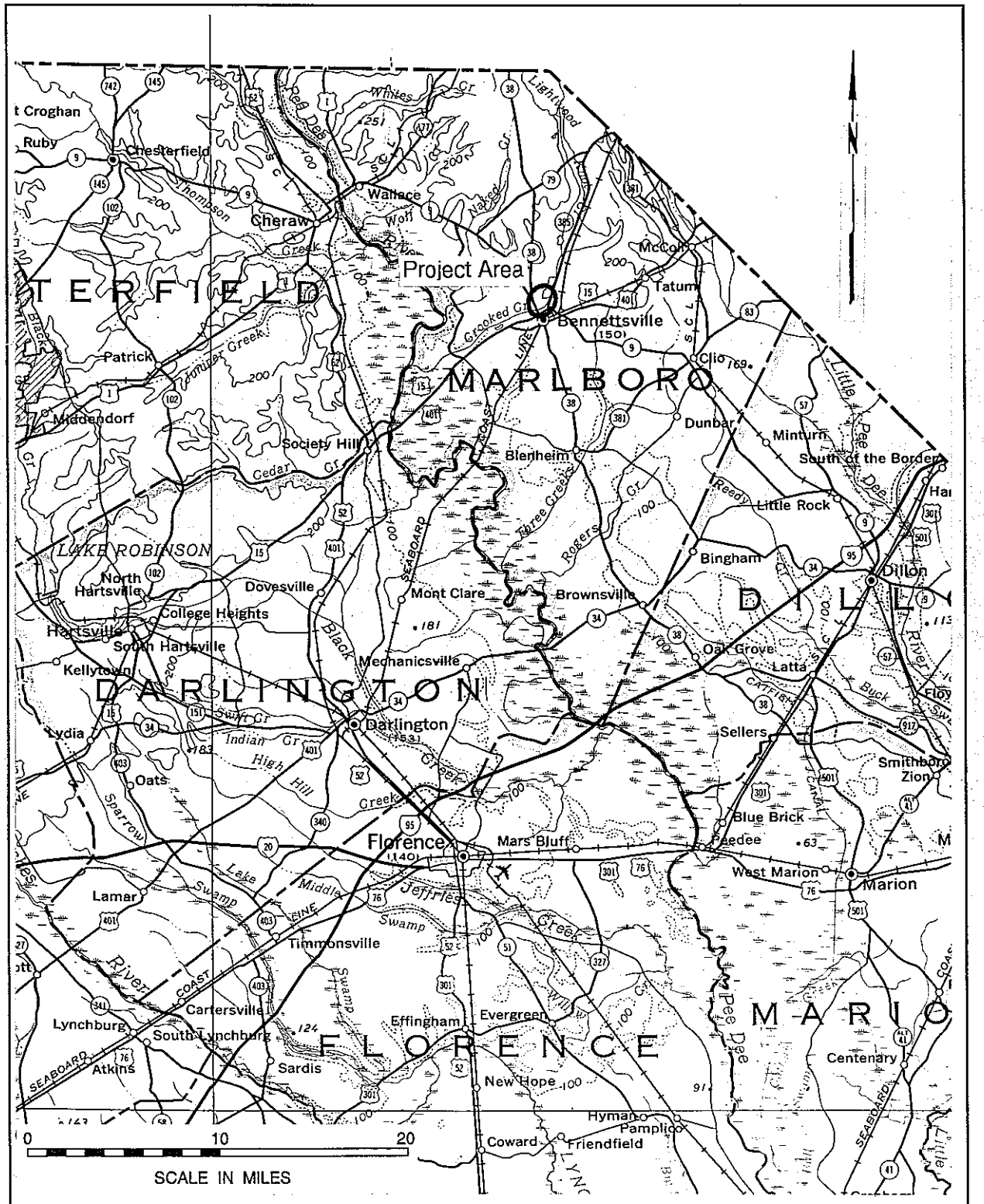

Figure 1. Location of the project in the Marlboro County area (basemap is USGS South Carolina 1:500,000).

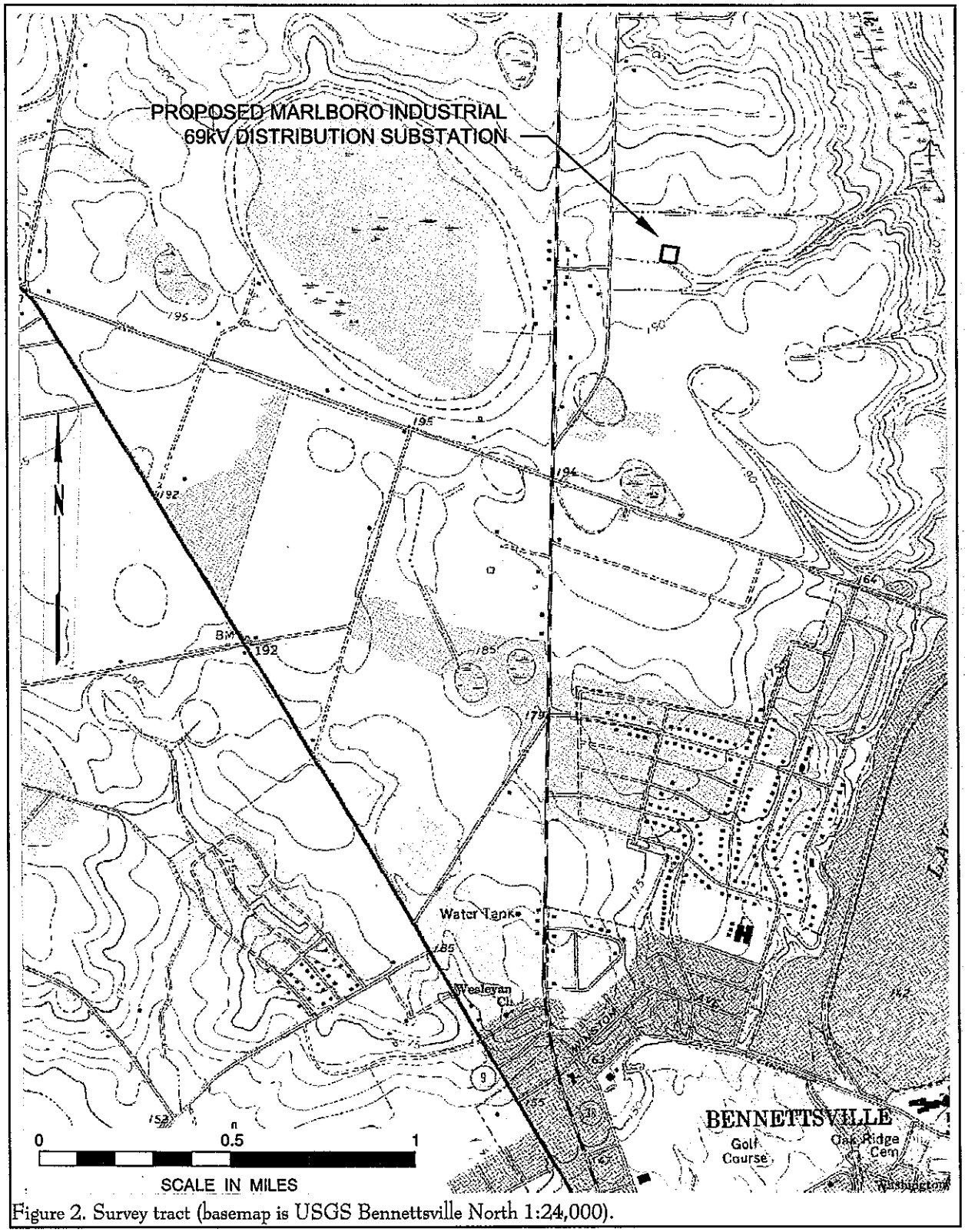

Figure 2. Survey tract (basemap is USGS Bennettsville North 1:24,000).

NATURAL ENVIRONMENT

Physiography

The project area is situated in central Marlboro County on a substantial sandy ridge overlooking the Lilly Quick Creek drainage to the east (Figures 1 and 2).

Marlboro County, situated in the northeastern part of South Carolina, is bounded to north and northeast by North Carolina, and to the east by Dillon County. Its entire western border consists of the Great Pee Dee River, which separates Marlboro Chesterfield, Darlington, and Florence counties.

The county is located entirely within one distinct physiographic provinces — the Atlantic Coastal Plain. The northern half of the coastal plain is known as the Sand Hills. The northern half of Marlboro County is found within this Sand Hill region. To the south is the Upper (or Inner) Coastal Plain. This is an area of rolling and hilly topography that is often difficult to distinguish from the topography of the Sand Hills or even the lower Piedmont.

The project area is technically in the Carolina Sand Hills, an area of discontinuous hilly topography characterized by rounded hills with gentle slopes, moderate relief, and sandy soils. Although technically part of the Coastal Plain geology, the Sand Hills are distinct geographically. Much of the sand was blown into dunes during the Miocene, although weathered clays and very old river deposits are also present. In many cases these sandy deposits lie directly on the crystalline rocks of the Piedmont (Kovacik and Winberry 1987; Murphy 1995).

Sand Hill and Upper Coastal Plain elevations may range from 500 feet above mean sea level (AMSL) to 200 feet AMSL, and in the project area the terrace overlooking Lilly Quick Creek is about 200 feet AMSL.

Marlboro County is drained by the Great Pee Dee River. Originating in North Carolina with the confluence of the Yadkin and Uwharrie rivers near Badin, the Pee Dee crosses the fall line just north of the project to begin its slow movement through a wide, swampy flood plain to the Atlantic Ocean. A minor tributary, Crooked Creek originates in Scotland County, North Carolina and flows south and west to the Pee Dee, entering about four miles west of the survey tract. Mills (1972 [1826]:632) lists Crooked Creek as the most important stream in the district, next only to the Pee Dee River itself. In the early twentieth century:

> Crooked Creek, another bold and fertile stream, which has its head near Hamlet, N.C., runs nearly through the centre of this county, passes within two hundred yards of the county court-house and empties into the Great Pee Dee River. On this stream, are some magnificent sites for manufacturing enterprises of almost any character (Gibson 1902:11).

Geology and Soils

The Sand Hills, as previously mentioned, are characterized by a plain that has generally gentle slopes and elevations of 350 to 500 feet. The soils, like those in the Coastal Plain, are typically unconsolidated marine deposits of light colored sands and kaoline clays. These soils are generally well drained, although some soil series do exhibit fragipans.

Metamorphic and volcanic rocks of the Carolina Slate Belt outcrop north of the survey area in Anson County, North Carolina and west along the fall line in southeastern Lancaster, northern Chesterfield, and Kershaw counties in South Carolina. In the survey area the geology consists of cross-bedded sands, gravel lenses, and impure clays (Bell 1974:9).

The soils surrounding Lilly Quick and Crooked creeks consist of the Norfolk-Rustin-Marlboro Association. These are found on nearly level to sloping, mostly well-drained sandy soils with yellowish-brown or yellowish-red clay subsoils. The bottomlands of Crooked Creek belong to the Wahee-Leaf-Flint Association of poorly drained to moderately well drained soils found on stream terraces (Craft 1965).

The project area is situated on Dunbar sandy loam, a soil that is often somewhat poorly drained, largely because it occurs on broad, flat areas with little potential drainage and because there is an underlying clay that hinders drainage. The surface layer range from dark gray (10YR4/1) to grayish brown (10YR5/2) in color, while the subsoil, typically encountered within the upper 1.2 foot of the soil, consists of a light yellowish brown (10YR6/4) firm sandy clay loam. This grades into a fine sandy clay or clay by a depth of 1.5 feet (Craft 1965:15). Avoiding the heavy erosion found further north and west, the Sand Hills were characterized as having either little erosion or moderate sheet erosion (Lowery 1934).

Ward has noted that "the most striking feature of these [Sand Hill] soils is their infertility and general unsuitability for agricultural use (Ward 1978:10). In 1934 the Land Policy Section of the Department of Agriculture was authorized to purchase land from Sand Hill farmers as part of a voluntary resettlement program. Mitchell observed that "most persons are appreciative of a chance to dispose of their land, which for the most part is unfit for farming purposes, and to purchase and move to better lands elsewhere" (Mitchell 1937:3).

Even in the early nineteenth century, Mills observed that the agricultural lands were those adjacent to the rivers and in the swamps, while the sandy uplands were much less productive:

> The streams which intersect the district in every direction, furnish margins of excellent soil; but little of this is yet brought into cultivation. The river lands are cultivated even to the very edge of the water. . . . [The low grounds] constitute the wealth of the district . . . (Mills 1972 [1826]:630).

Less than 20 years later Edmund Ruffin had a similar opinion of the sand hills and the wasteful cultivation of the land, yet it seems to have had little impact on the planters he met (Mathew 1992).

In spite of these early warnings, the South Carolina Department of Agriculture, Commerce, and Immigration, as late as 1907, found no reason to remark on the threat of erosion, noting only that "elevated flats can be brought to a high state of fertility by proper methods of farming" and that the soils are "superior for peanuts, sweet potatoes, sorghum, watermelons and the staples, oats, cotton, corn, and some wheat" (State Department of Agriculture, Commerce, and Immigration 1907:255).

Floristics

Braun (1950), classifies the Sand Hills as part of the Southeast Evergreen Forest Region. Regardless, the potential natural vegetation of the project area is the Oak-Hickory-Pine forest, composed of medium tall to tall forests of broadlead deciduous and needleleaf evergreen trees (Küchler 1964). The major components of this ecosystem include hickory, shortleaf pine, loblolly pine, white oak, and post oak.

John Berry rightly comments that "a walk through the most xeric stages of the fall line sandhills would probably be very boring. Such areas are dominated by turkey oaks, scrubby post oaks, and broad expanses of open sandy soil. Intensively logged areas are frequently found in slash or loblolly pine. There are, however, other econiches. For example, on the more mesic soils pines and mixed hardwoods can be common, dominated by loblolly pines, cedars, southern red oaks, and even pignut and mockernut hickories. In these mesic woods the understory includes dogwoods, sassafras, blackgum, and persimmon (Berry 1980: 103, 114-115). In the floodplain of Crooked Creek there are black-gum, scrub oak, tupelo gum, sweet gum, and yellow poplar. Cypress and cedar, while important in the past, are no longer significant due to exploitation by logging operations (Craft 1965:49; see also Mills 1972 [1826]:633).

Figure 3. View of the substation lot, looking east. Soybeans are currently being cultivated.

In fact, the general area exhibits considerable ecological diversity. Within a mile of the site there are several creeks associated with such trees as pond pine, red maple, and sweet bay. There are shrub layers that are very attractive to a diverse range of mammals, including deer, opossum, and raccoon. The Pee Dee basin is a major flyway and migratory birds, particularly mallard and black duck, are attracted to the region in great numbers. Mills observed that, "quantities of shad and sturgeon are caught in the Pedee during the spring" (Mills 1972 [1826]:635), certainly being a major protein source for the Native Americans. The Sandhills are well suited to turkeys, which are found nesting along the edge of the swamp. The ecotone between swamp and uplands, Piedmont and coastal plain, offers a prime habitat for a wide variety of mammals. It is likely that the swamps associated with Crooked Creek were present prior to the creation of the various mill ponds. In fact, these swamps may owe their original formation to the beavers which were once very common in the region (Ward 1978:11).

It is this diversity which probably made the project area attractive to Native Americans, who saw the site area as providing a range of different environmental zones in close proximity, not a "boring" or sterile sand wasteland (which admittedly is more typical of some sand hill areas).

Today, however, much of this diversity has been lost to either agriculture or industrial development. The survey tract, for example, evidences no flora except that of commercial agriculture and the nearest remnant swamp bottom vegetation is at least a mile away.

Climate

Elevation, latitude, and distance from the coast work together to affect the climate of South Carolina, including the Sand Hills. In addition, the more westerly mountains block or moderate many of the cold air masses that flow across the state from west to east. Even the very cold air masses which cross the mountains are warmed somewhat by compression before they descend on the Piedmont and adjacent Sand Hills.

Consequently, the climate of Marlboro County is temperate. The winters are relatively mild and the summers warm and humid. Rainfall in the amount of about 46 inches is adequate, although less than in some neighboring counties. About 23 inches of rain occur during the growing season, with periods of drought not uncommon during the summer months. As Hilliard illustrates, these droughts tended to be localized and tended to occur several years in a row, increasing the hardship on those attempting to recover from the previous year's crop failure (Hilliard 1984:16). Perhaps the best wide-scale example of this was the drought of 1845, which caused a series of very serious grain and food shortages throughout the state. In the twentieth century Marlboro saw severe droughts in 1925 and

1954 (Craft 1965:105).

The average growing season is about 216 days, although early freezes in the fall and late frosts in the spring can reduce this period. Consequently, most cotton planting, for example, did not take place until early May, avoiding the possibility that a late frost would damage the young seedlings.

PREHISTORIC AND HISTORIC SYNOPSIS

Prehistoric Overview

Overviews for South Carolina's prehistory, while of differing lengths and complexity, are available in virtually every compliance report prepared. There are, in addition, some "classic" sources well worth attention, such as Joffre Coe's *Formative Cultures* (Coe 1964), as well as some new general overviews (such as Sassaman et al. 1990 and Goodyear and Hanson 1989). Also extremely helpful, perhaps even essential, are a handful of recent local synthetic statements, such as that offered by Sassaman and Anderson (1994) for the Middle and Late Archaic and by Anderson et al. (1992) for the Paleoindian and Early Archaic. Only a few of the many sources are included in this study, but they should be adequate to give the reader a "feel" for the area and help establish a context for the various sites identified in the study areas. For those desiring a more general synthesis, perhaps the most readable and well balanced is that offered by Judith Bense (1994), *Archaeology of the Southeastern United States: Paleoindian to World War I*. Figure 4 offers a generalized view of South Carolina's cultural periods.

Paleoindian Period

The Paleoindian Period, most commonly dated from about 12,000 to 10,000 B.P., is evidenced by basally thinned, side-notch projectile points; fluted, lanceolate projectile points, side scrapers, end scrapers; and drills (Coe 1964; Michie 1977; Williams 1965). Oliver (1981, 1985) has proposed to extend the Paleoindian dating in the North Carolina Piedmont to perhaps as early as 14,000 B.P., incorporating the Hardaway Side-Notched and Palmer Corner-Notched types, usually accepted as Early Archaic, as representatives of the terminal phase. This view, verbally suggested by Coe for a number of years, has considerable technological appeal.[1] Oliver suggests a continuity from the Hardaway Blade through the Hardaway-Dalton to the Hardaway Side-Notched, eventually to the Palmer Side-Notched (Oliver 1985:199-200). While convincingly argued, this approach is not universally accepted.

The Paleoindian occupation, while widespread, does not appear to have been intensive. Artifacts are most frequently found along major river drainages, which Michie interprets to support the concept of an economy "oriented toward the exploitation of now extinct mega-fauna" (Michie 1977:124). Survey data for Paleoindian tools, most notably fluted points, is somewhat dated, but has been summarized by Charles and Michie 1992). They reveal a widespread distribution across the state (see also Anderson 1992b:Figure 5.1) with at least several concentrations relating to intensity of collector activity. What is clear is that points are found fairly far removed from the origin of the raw material. Charles and Miche suggest that this may "imply a geographically extensive settlement system" (Charles and Michie 1992:247).

Although data are sparse, one of the more attractive theories that explains the widespread distribution of Paleoindian sites is the model tracking the replacement of a high technology forager (or HTF) adaptation by a "progressively more generalized band/microband foraging adaption" accompanied by increasingly distinct regional traditions (perhaps

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[1] While never discussed by Coe at length, he did observe that many of the Hardaway points, especially from the lowest contexts, had facial fluting or thinning which, "in cases where the side-notches or basal portions were missing, . . . could be mistaken for fluted points of the Paleo-Indian period" (Coe 1964:64). While not an especially strong statement, it does reveal the formation of the concept. Further insight is offered by Ward's (1983:63) all too brief comments on the more recent investigations at the Hardaway site (see also Daniel 1992).

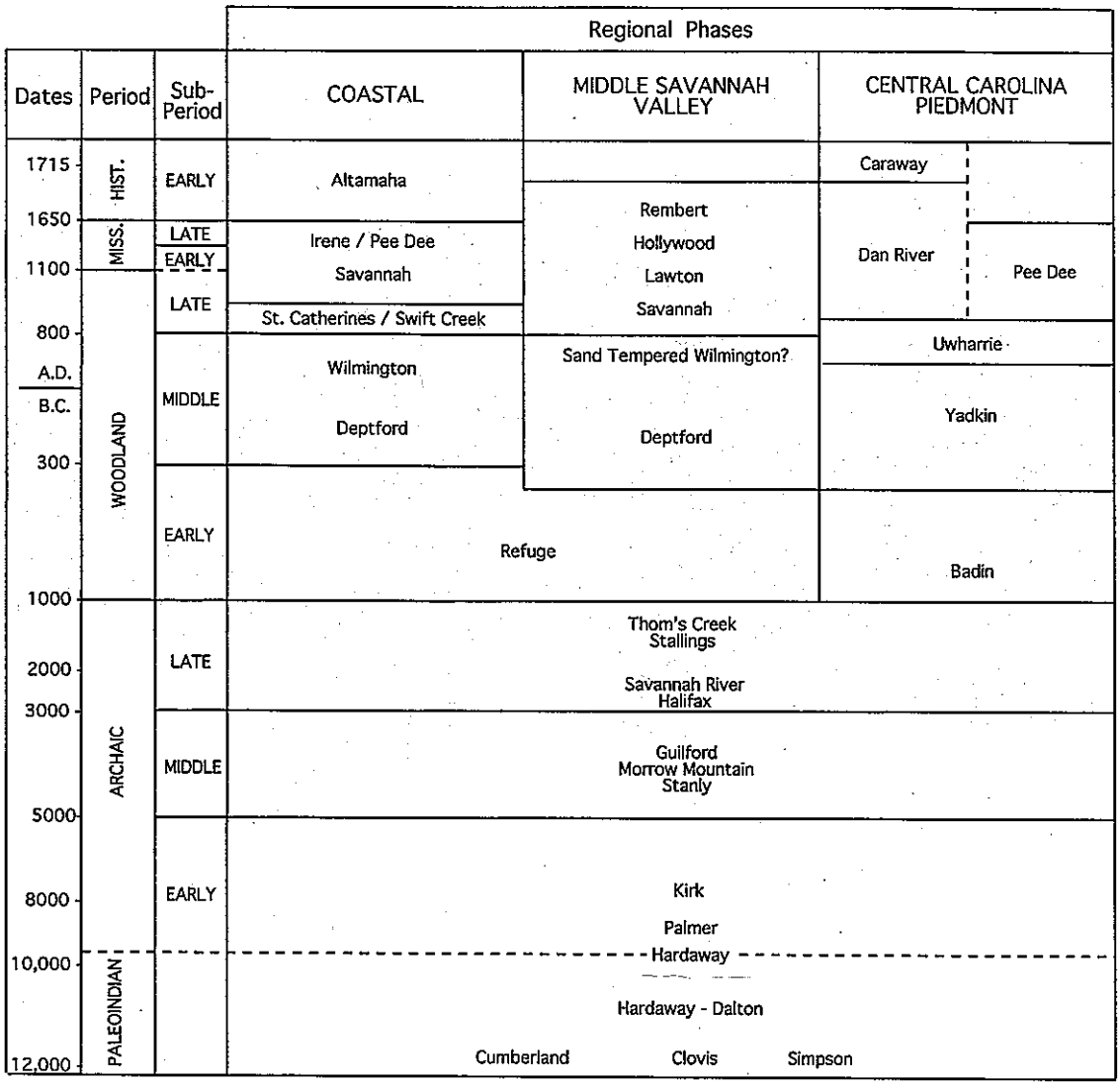

Figure 4. A generalized cultural sequence for South Carolina (partially adapted from Coe 1964:Figure 116).

reflecting movement either along or perhaps even between river drainages) (Anderson 1992b:46).

Distinctive projectile points include lanceolates such as Clovis, Dalton, perhaps the Hardaway, and Big Sandy (Coe 1964; Phelps 1983; Oliver 1985). A temporal sequence of Paleoindian projectile points was proposed by Williams (1965:24-51), but according to Phelps (1983:18) there is little stratigraphic or chronometric evidence for it. While this is certainly true, a number of authors, such as Anderson (1992a) and Oliver (1985) have assembled impressive data sets. We are inclined to believe that while often not conclusively proven by stratigraphic excavations (and such proof may be an unreasonable expectation), there is a large body of circumstantial evidence. The weight of this evidence tends to provide considerable support.

Unfortunately, relatively little is known about Paleoindian subsistence strategies, settlement systems, or social organization (see, however, Anderson 1992b for an excellent overview and synthesis of what is known). Generally, archaeologists agree that the Paleoindian groups were at a band level of society, were nomadic, and were both hunters and foragers. While population density, based on isolated finds, is thought to have been low, Walthall suggests that toward the end of the period, "there was an increase in population density and in territoriality and that a number of new resource areas were beginning to be exploited" (Walthall 1980:30).

Archaic Period

The Archaic Period, which dates from 10,000 to 3,000 B.P.[2], does not form a sharp break with the Paleoindian Period, but is a slow transition characterized by a modern climate and an increase in the diversity of material culture. Associated with this is a reliance on a broad spectrum of small mammals, although the white tailed deer was likely the most commonly exploited animal. Archaic period assemblages, exemplified by corner-notched and broad-stemmed projectile points, are fairly common, perhaps because the swamps and drainages offered especially attractive ecotones.

Many researchers have reported data suggestive of a noticeable population increase from the Paleoindian into the Early Archaic. This has tentatively been associated with a greater emphasis on foraging. Diagnostic Early Archaic artifacts include the Kirk Corner Notched point. As previously discussed, Palmer points may be included with either the Paleoindian or Archaic period, depending on theoretical perspective. As the climate became hotter and drier than the previous Paleoindian period, resulting in vegetational changes, it also affected settlement patterning as evidenced by a long-term Kirk phase midden deposit at the Hardaway site (Coe 1964:60). This is believed to have been the result of a change in subsistence strategies.

Settlements during the Early Archaic suggest the presence of a few very large, and apparently intensively occupied, sites which can best be considered base camps. Hardaway might be one such site. In addition, there were numerous small sites which produce only a few artifacts — these are the "network of tracks" mentioned by Ward (1983:65). The base camps produce a wide range of artifact types and raw materials

[2] The terminal point for the Archaic is no clearer than that for the Paleoindian and many researchers suggest a terminal date of 4,000 B.P. rather than 3,000 B.P. There is also the question of whether ceramics, such as the fiber-tempered Stallings ware, will be included as Archaic, or will be included with the Woodland. Oliver, for example, argues that the inclusion of ceramics with Late Archaic attributes "complicates and confuses classification and interpretation needlessly" (Oliver 1981:20). He comments that according to the original definition of the Archaic, it "represents a preceramic horizon" and that "the presence of ceramics provides a convenient marker for separation of the Archaic and Woodland periods (Oliver 1981:21). Others would counter that such an approach ignores cultural continuity and forces an artificial, and perhaps unrealistic, separation. Sassaman and Anderson (1994:38-44), for example, include Stallings and Thom's Creek wares in their discussion of "Late Archaic Pottery." While this issue has been of considerable importance along the Carolina and Georgia coasts, it has never affected the Piedmont, which seems to have embraced pottery far later, well into the conventional Woodland period. The importance of the issue in the Sandhills, unfortunately, is not well known.

which has suggested to many researchers long-term, perhaps seasonal or multi-seasonal, occupation. In contrast, the smaller sites are thought of as special purpose or foraging sites (see Ward 1983:67).

Middle Archaic (8,000 to 6,000 B.P.) diagnostic artifacts include Morrow Mountain, Guilford, Stanly and Halifax projectile points. Much of our best information on the Middle Archaic comes from sites investigated west of the Appalachian Mountains, such as the work by Jeff Chapman and his students in the Little Tennessee River Valley (for a general overview see Chapman 1977, 1985a, 1985b). There is good evidence that Middle Archaic lithic technologies changed dramatically. End scrapers, at times associated with Paleoindian traditions, are discontinued, raw materials tend to reflect the greater use of locally available materials, and mortars are initially introduced. Associated with these technological changes there seem to also be some significant cultural modifications. Prepared burials begin to more commonly occur and storage pits are identified. The work at Middle Archaic river valley sites, with their evidence of a diverse floral and faunal subsistence base, seems to stand in stark contrast to Caldwell's Middle Archaic "Old Quartz Industry" of Georgia and the Carolinas, where axes, choppers, and ground and polished stone tools are very rare.

Among the most common of all Middle Woodland artifacts is the Morrow Mountain Stemmed projectile point. Originally divided into two varieties by Coe (1964:37,43) based primarily on the size of the blade and the stem. Morrow Mountain I points had relatively small triangular blades with short, pointed stems. Morrow Mountain II points had longer, narrower blades with long, tapered stems. Coe suggested a temporal sequence from Morrow Mountain I to Morrow Mountain II. While this has been rejected by some archaeologists, who suggest that the differences are entirely related to the life-stage of the point, the debate is far from settled and Coe has considerable support for his scenario.

The Morrow Mountain point is also important in our discussions since it represents a departure from the Carolina Stemmed Tradition. Coe has suggested that the groups responsible for the Middle Archaic Morrow Mountain (and the later Guilford points) were intrusive ("without any background" in Coe's words) into the North Carolina Piedmont, from the west, and were contemporaneous with the groups producing Stanly points (Coe 1964:122-123; see also Phelps 1983:23). Phelps, building on Coe, refers to the Morrow Mountain and Guilford as the "Western Intrusive horizon." Sassaman (1995) has recently proposed a scenario for the Morrow Mountain groups which would support this west-to-east time-transgressive process. Abbott and his colleagues, perhaps unaware of Sassaman's data, dismiss the concept, commenting that the shear distribution and number of these points "makes this position wholly untenable" (Abbott et al. 1995:9).

The controversy surrounding Morrow Mountain also includes its posited date range. Coe (1964:123) did not expect the Morrow Mountain to predate 6500 B.P., yet more recent research in Tennessee reveals a date range of about 7500 to 6500 B.P. Sassaman and Anderson (1994:24) observe that the South Carolina dates have never matched the antiquity of their more western counterparts and suggest continuation to perhaps as late as 5500 B.P. In fact they suggest that even later dates are possible since it can often be difficult to separate Morrow Mountain and Guilford points.

A recently defined point is the MALA. The term is an acronym standing for Middle Archaic and Late Archaic, the strata in which these points were first encountered at the Pen Point site (38BR383) in Barnwell County, South Carolina (Sassaman 1985). These stemmed and notched lanceolate points were originally found in a context suggesting a single-episode event with variation not based on temporal variation. The original discussion was explicitly worded to avoid application of a typology, although as Sassaman and Anderson (1994:27) note, the "type" has spread into more common usage. There are possible connections with both the Halifax points of North Carolina and the Benton points of the middle Tennessee River valley, while the "heartland" for the MALA appears confined to the lower middle Coastal Plain of South Carolina.

The available information has resulted in a variety of competing settlement models. Some argue for

increased sedentism and a reduction of mobility (see Goodyear et al. 1979:111). Ward argues that the most appropriate model is one which includes relatively stable and sedentary hunters and gatherers "primarily adapted to the varied and rich resource base offered by the major alluvial valleys" (Ward 1983:69). While he recognizes the presence of "inter-riverine" sites, he discounts explanations which focus on seasonal rounds, suggesting "alternative explanations . . . [including] a wide range of adaptive responses." Most importantly, he notes that:

> the seasonal transhumance model and the sedentary model are opposite ends of a continuum, and in all likelihood variations on these two themes probably existed in different regions at different times throughout the Archaic period (Ward 1983:69).

Others suggest increased mobility during the Archaic (see Cable 1982). Sassaman (1983) has suggested that the Morrow Mountain phase people had a great deal of residential mobility, based on the variety of environmental zones they are found in and the lack of site diversity. The high level of mobility, coupled with the rapid replacement of these points, may help explain the seemingly large numbers of sites with Middle Archaic assemblages. Curiously, the later Guilford phase sites are not as widely distributed, perhaps suggesting that only certain micro-environments were used (cf. Ward [1983:68-69] who would likely reject the notion that substantially different environmental zones are, in fact, represented).

Recently Abbott et al. argue for a combination of these models, noting that the almost certain increase in population levels probably resulted in a contraction of local territories. With small territories there would have been significantly greater pressure to successfully exploit the limited resources by more frequent movement of camps. They discount the idea that these territories could have been exploited from a single base camp without horticultural technology. Abbott and his colleagues conclude, "increased residential mobility under such conditions may in fact represent a common stage in the development of sedentism" (Abbott et al. 1995:9).

From excavations at a Sandhills site in Chesterfield County, South Carolina, Gunn and his colleague (Gunn and Wilson 1993) offer an alternative model for Middle Archaic settlement. He accepts that the uplands were desiccated from global warming, but rather than limiting occupation, this environmental change made the area more attractive for residential base camps. Gunn and Wilson suggest that the open, or fringe, habitat of the upland margins would have been attractive to a wide variety of plant and animal species.

The Late Archaic, usually dated from 6,000 to 3,000 or 4,000 B.P., is characterized by the appearance of large, square stemmed Savannah River projectile points (Coe 1964). These people continued to intensively exploit the uplands much like earlier Archaic groups with, the bulk of our data for this period coming from the Uwharrie region in North Carolina.

One of the more debated issues of the Late Archaic is the typology of the Savannah River Stemmed and its various diminutive forms. Oliver, refining Coe's (1964) original Savannah River Stemmed type and a small variant from Gaston (South 1959:153-157), developed a complete sequence of stemmed points that decrease uniformly in size through time (Oliver 1981, 1985). Specifically, he sees the progression from Savannah River Stemmed to Small Savannah River Stemmed to Gypsy Stemmed to Swannanoa from about 5000 B.P. to about 1,500 B.P. He also notes that the latter two forms are associated with Woodland pottery.

This reconstruction is still debated with a number of archaeologists expressing concern with what they see as typological overlap and ambiguity. They point to a dearth of radiocarbon dates and good excavation contexts at the same time they express concern with the application of this typology outside the North Carolina Piedmont (see, for a synopsis, Sassaman and Anderson 1990:158-162, 1994:35).

In addition to the presence of Savannah River points, the Late Archaic also witnessed the introduction of steatite vessels (see Coe 1964:112-113; Sassaman 1993), polished and pecked stone artifacts, and grinding stones. Some also include the introduction of fiber-tempered pottery about 4000 B.P. in the Late Archaic (for a discussion see Sassaman and Anderson 1994:38-

44). This innovation is of special importance along the Georgia and South Carolina coasts, but seems to have had only minimal impact in the uplands of South or North Carolina.

There is evidence that during the Late Archaic the climate began to approximate modern climatic conditions. Rainfall increased resulting in a more lush vegetation pattern. The pollen record indicates an increase in pine which reduced the oak-hickory nut masts which previously were so widespread. This change probably affected settlement patterning since nut masts were now more isolated and concentrated. From research in the Savannah River valley near Aiken, South Carolina, Sassaman has found considerable diversity in Late Archaic site types with sites occurring in virtually every upland environmental zone. He suggests that this more complex settlement pattern evolved from an increasingly complex socio-economic system. While it is unlikely that this model can be simply transferred to the Sandhills of South Carolina without an extensive review of site data and micro-environmental data, it does demonstrate one approach to understanding the transition from Archaic to Woodland.

Woodland Period

As previously discussed, there are those who see the Woodland beginning with the introduction of pottery. Under this scenario the Early Woodland may begin as early as 4,500 B.P. and continued to about 2,300 B.P. Diagnostics would include the small variety of the Late Archaic Savannah River Stemmed point (Oliver 1985) and pottery of the Stallings and Thoms Creek series. These sand tempered Thoms Creek wares are decorated using punctations, jab-and-drag, and incised designs (Trinkley 1976). Also potentially included are Refuge wares, also characterized by sandy paste, but often having only a plain or dentate-stamped surface (Waring 1968). Others would have the Woodland beginning about 3,000 B.P. and perhaps as late as 2,500 B.P. with the introduction of pottery which is cord-marked or fabric-impressed and suggestive of influences from northern cultures.

There remains, in South Carolina, considerable ambiguity regarding the pottery series found in the Sandhills and their association with coastal plain and piedmont types. The earliest pottery found at many sites may be called either Deptford or Yadkin, depending on the research or their inclination at any given moment.

The Deptford phase, which dates from 3050 to 1350 B.P., is best characterized by fine to coarse sandy paste pottery with a check stamped surface treatment. The Deptford settlement pattern involves both coastal and inland sites.

Inland sites such as 38AK228-W, 38LX5, 38RD60, and 38BM40 indicate the presence of an extensive Deptford occupation on the Fall Line and the Inner Coastal Plain/Sand Hills, although sandy, acidic soils preclude statements on the subsistence base (Anderson 1979; Ryan 1972; Trinkley 1980). These interior or upland Deptford sites, however, are strongly associated with the swamp terrace edge, and this environment is productive not only in nut masts, but also in large mammals such as deer. Perhaps the best data concerning Deptford "base camps" comes from the Lewis-West site (38AK228-W), where evidence of abundant food remains, storage pit features, elaborate material culture, mortuary behavior, and craft specialization has been reported (Sassaman et al. 1990:96-98; see also Sassaman 1993 for similar data recovered from 38AK157).

Further to the north and west, in the Piedmont, the Early Woodland is marked by a pottery type defined by Coe (1964:27-29) as Badin.[3] This pottery is identified as having very fine sand in the paste with an occasional pebble. Coe identified cord-marked, fabric-marked, net-impressed, and plain surface finishes. Beyond this pottery little is known about the makers of the Badin wares and relatively few of these sherds are reported from South Carolina sites.

[3] The ceramics suggest clear regional differences during the Woodland which seem to only be magnified during the later phases. Ward (1983:71), for example, notes that there "marked distinctions" between the pottery from the Buggs Island and Gaston Reservoirs and that from the south-central Piedmont.

Somewhat more information is available for the Middle Woodland, typically given the range of about 2,300 B.P. to 1,200 B.P. In the Piedmont and even into the Sand Hills, the dominant Middle Woodland ceramic type is typically identified as the Yadkin series. Characterized by a crushed quartz temper the pottery includes surface treatments of cord-marked, fabric-marked, and a very few linear check-stamped sherds (Coe 1964:30-32). It is regrettable that several of the seemingly "best" Yadkin sites, such as the Trestle site (31An19) explored by Peter Cooper (Ward 1983:72-73), have never been published.

Yadkin ceramics are associated with medium-sized triangular points, although Oliver (1981) suggests that a continuation of the Piedmont Stemmed Tradition to at least 1650 B.P. coexisted with this Triangular Tradition. The Yadkin in South Carolina has been best explored by research at 38SU83 in Sumter County (Blanton et al. 1986) and at 38FL249 in Florence County (Trinkley et al. 1993)

In some respects the Late Woodland (1,200 B.P. to 400 B.P.) may be characterized as a continuation of previous Middle Woodland cultural assemblages. While outside the Carolinas there were major cultural changes, such as the continued development and elaboration of agriculture, the Carolina groups settled into a lifeway not appreciably different from that observed for the previous 500-700 years. From the vantage point of the Middle Savannah Valley Sassaman and his colleagues note that, "the Late Woodland is difficult to delineate typologically from its antecedent or from the subsequent Mississippian period" (Sassaman et al. 1990:14). This situation would remain unchanged until the development of the South Appalachian Mississippian complex (see Ferguson 1971).

Protohistoric Period

The history of the numerous small coastal Indian tribes after contact is poorly known. As Mooney noted, the coastal tribes,

> were of but small importance politically; no sustained mission work was ever attempted among them, and there were but few literary men to take an interest in them. War, pestilence, whiskey and systematic slave hunts had nearly exterminated the aboriginal occupants of the Carolinas before anybody had thought them of sufficient importance to ask who they were, how they lived, or what were their beliefs and opinions (Mooney 1894:6).

The Pedee are first mentioned in 1711 when they formed a small part of Colonel John Barnwell's force against the Tuscarora in North Carolina (Milling 1969:118). Mooney (1894:76-77) notes that their village, in 1715, was situated on the east bank of the Pee Dee, probably in the vicinity of Marion County. A military map dating from 1715 shows the Pedees to be about 38 miles down river from the "Saraus" (Saras) and about 80 miles up river from the Atlantic Ocean. This would place the Pedee very close to their location shown by DeBrahm on his 1757 map.

By 1716 the Pedees were in a region called Saukey (thought by Swanton to be what is today Socatee) which was mentioned as a possible trading post or "factory" site (McDowell 1955:80). Several months later, however, the Indian Trade Commissioners abandoned Suakey in favor of Uauenee (or Great Bluff, today known as Yauhannah). It was observed that:

> 1st, its Vicinity to our English Plantations, will afford us News from thence, at all Times, by Land, within three or four Days, at most; whereas Saukey (the appointed Place) is much more remote; 2ndly, that Saukey being only covered by the Pedea's, is exposed to the Insults of the Charraws; 3rdly, that (besides the Interest it will be to us, in obliging the Wackamaws, a People of greater Consequence then the Pedeas, by such a Settlement), Uauenee being contiguous to the Wackamaws, the most populous of those two Nations; so on the other Hand, 'tis the best

> seated for a general Consourse and frequent (McDowell 1955:111).

This passage, while ambiguous, suggests that Saukey was situated further north, perhaps along the Pee Dee River. But it is unlikely that it was at Socatee as suggested by Swanton.

During the early eighteenth century there was constant warfare between the southern and northern Indian groups, with a tremendous loss of life. An account in the British Public Records Office states:

> Before the end of the said year [1716] we recovered the Charokees and Northward Indians after several Slaughters and Blood Sheddings, which has lessened their numbers and utterly Extirpating some little tribes as the Congarees, Santees, Seawees, Pedees, Waxhaws and some Corsaboys, so that by Warr, Pestilence and Civill Warr amongst themselves, the Charokes may be computed reduced to about 10,000 souls & the Northern Indians to about 2500 Souls (quoted in Mills 1972 [1826]:223-224).

While it is possible that the Pedee suffered a severe reduction in population, it is clear from the historic accounts that some of their number survived. In February 1717 a Pedee, Tom West, came to Charleston to arrange a peace between the English and the Charraw (McDowell 1955:160, 176). Apparently the peace was not formed, or at least was short lived (McDowell 1955:209). Late in 1717 the Pedee appealed to the English not to move the trading post from Uauenee to the Black River (McDowell 1955:208).

At least as early as the 1740s some of the Pedee had joined with the Catawba in an uneasy confederation (Mooney 1894:77), while the remaining Pedee were classified as "Settlement Indians," living among the English (McDowell 1958:85, 166). Mooney reports that the Settlement Pedee joined in a variety of Anglo activities, even keeping black slaves (Mooney 1894:77). In 1752 the Catawba wrote Governor James Glen:

> There are a great many Pedee Indians living in the Settlements that we want to come and settle amongst us. We desire you to send for them and advise them to this, and give them this String of Wampum in Token that we want them to settle here, and will always live - like Brothers with them. The Northern Indians want them all to settle with us, for as they are now at Peace they may be hunting in the Woods or stragling about killed by some of them except they join us and make but one Nation, which will be a great Addition of Strength to us (McDowell 1958:362).

While many of the remaining Pedee apparently joined the Catawba, it did not provide total protection. As late as 1753 the Northern Indians took at least one Pedee Indian slave during a "visit" to the Catawba area (McDowell 1958:388). In 1755 a Settlement Pedee was killed by the Notchee and Cherokee (Mooney 1894:77, 84).

De Brahm's "Map of South Carolina and a Part of Georgia," dated 1757 shows the "Peadea Indian Old Town" situated almost immediately east of the survey tract. By the time of Mouzon's "An Accurate Map of North and South Carolina" in 1775 no further evidence of the Pedee was shown.

The last mention of the Pedee comes from Ramsay's *History of South Carolina*:

> Persons now living remember that there were about thirty Indians, a remnant of the Pedee and Cape Fear tribes that lived in the Parishes of St. Stephens and St. Johns. King John was their chief. There was another man among the same tribe who was called Prince. Governor Lyttelton give him a Commission of Captain

> General and Commander-in-Chief of the two tribes, which superseded Johnny. The latter took umbrage at the promotion of the former and attempted to kill him. There were some shots exchanged, but no mischief was done. All this remnant of these ancient tribes are now extinct except for one woman of a half-breed (Ramsay 1858:Appendix II).

Swanton was able to determine little more than this about the Pedee, observing that no words survived. In spite of this, he attributed the Pedee to the Siouan linguistic stock, probably on the basis of their frequent identification with other, supposedly Siouan, groups.

No archaeological sites attributable to the Pedee have been identified and Swanton observed, "no village names are known apart from the tribal name, which was sometimes applied to specific settlements" (Swanton 1952:97). The presumed protohistoric remains in this region are essentially identical (at least in a gross sense) to those found elsewhere. They include small, triangular projectile points, often crudely made; complicated stamped pottery with motifs ranging from finely applied to crudely stamped; and diminutive ground stone celts. Protohistoric to historic Pedee villages, when found, are likely to be evidenced by a significant quantity of trade goods, including glass beads, copper bangles, guns or gun parts, tobacco pipes, iron hatchets and knives, and similar items.

At the present, however, there is virtually nothing known of the Pedee Indians and their villages remain lost. The Pedee settlement which should be most easily identified based on period maps has received no professional attention, although there is some evidence that it has been looted by relic hunters.

Historic Synopsis

The early history of Marlboro was succinctly presented by Mills:

> Soon after Braddock's defeat [reference to General Edward Braddock and his disastrous defeat in the Ohio Valley at the hands of the French during the French and Indian War] the frontier inhabitants of Virginia and Pennsylvania began to move southwardly; and this section of the state was settled by a few of them. The progress of population was slow previous to the Indian treaty, in 1755; after which it began to increase; but received several checks, until the close of the revolutionary war, when a considerable accession took place (Mills 1972 [1826]:629).

Much of this early settlement occurred in the area called Welsh Neck or Tract. Not strictly a township, a large portion, from Crooked Creek to Hunt's Bluff, had been granted in small parcels by 1746 to such individuals as Daniel Lewis, Samuel Wilds, and Daniel James. These, and other Welch, came largely from Pennsylvania, attracted by the possibly of plants such crops as hemp. flax, wheat, and barley (Wallace 1951:155).

McColl remarked that the first court house, build about 1787, was located near the Pee Dee River:

> very near the road to Gardner's Bluff, not very far from the river and very close to the present cross roads leading from Bennettsville to Gardner's Bluff and from Evans' or Matheson's Mill to Cheraw (McColl n.d.:78).

Mills also notes that the court house was built close to the banks of Crooked Creek and remarked that:

> there was built there three or four stores, and five or six dwelling houses, but no tavern. The village was called Winfieldsville (Mills 1972 [1826]:631).

Mills also observed that the earliest settlements were consistently located along the Pee Dee River, an area thought, at the time, to be healthy. In fact, "the

inhabitant of the sandy interior was deemed, upon the river, a kind of curiosity, and half savage" (Mills 1972 [1826]:634). As the years passed, however, the planters began moving inland, into the sand hills, to get away from the swamps and the associated fevers and miasmas. Consequently, the court house was moved to its current location in Bennettsville in 1818. A brick court house and jail were erected in 1821 (rebuilt in 1852, 1885, and 1952). Bennettsville, named for Governor Thomas Bennett (1820-1822), remained a sleepy, small town until after the Civil War.

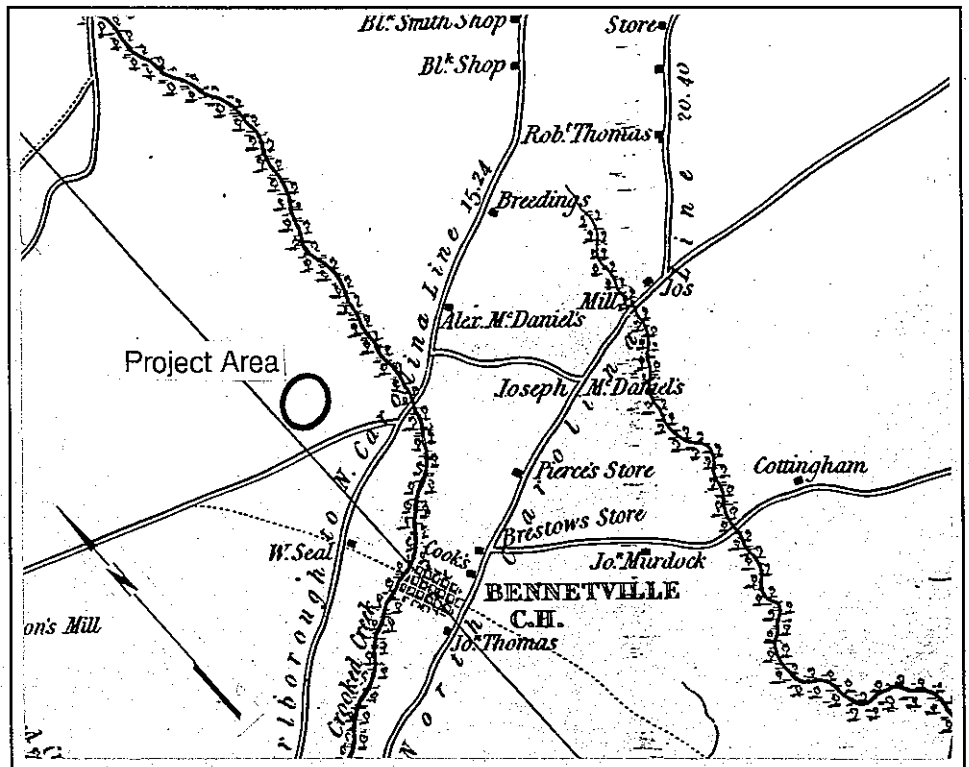

Figure 5. Portion of Mills' 1826 *Atlas* showing the project area.

One author remarked that:

> Prior to the war the citizens of the sand hill section did but little in an agricultural way, and their main industry was the raising of cattle and hogs, which roamed at large through the extensive forests (Gibson 1902:5).

Where agriculture was practiced, it is clear from Mills that it was of the most ruthless kind:

> the same ruinous system of cultivation practiced in other places is prevalent here. Once piece of land after another is exhausted, and abandoned; nothing like farming; no husbandry of the natural advantages of the soil; forest after forest is felled, and reduced to ashes, without regard to the consequences of such waste (Mills 1972 [1826]:637).

Prior to the Civil War the Crooked Creek area well known for its extensive mills, including those of General Thomas, Major Robinson, and Major Pledger (Mills 1972 [1826]:632). About five miles north of Bennettsville Mr. Meekins Townsend built a water powered cotton mill on Crooked creek. Gibson notes that, "a beautiful factory village occupied the high sandy level ridge east of the mill," and that the mill burned shortly before the Civil War (Gibson 1902:16).

In spite of the development around Bennettsville, Mills' *Atlas* (Figure 5) fails to show any development around the study tract. This lack of settlement may simply be a reflection of Mills' subscription base, although soils in this particular area tend to be lower and less well drained than those to the east.

In 1850, a decade before the Civil War,

Marlboro County was about evenly divided between whites and African American slaves (5033 to 5600). With 621 farms, only six counties had a smaller agricultural base. In spite of this, Marlboro ranked 16th in cotton production, with 9,501 bales. Other significant crops included Indian corn and wheat (DeBow 1854:304-305).

The Civil War was not particularly kind to Marlboro. Sherman's army passed through the county on its way from Columbia, South Carolina to Fayetteville, North Carolina. Nearly all the gins, some of the mills, and many of the residences were destroyed. Sherman and Howard both had their camps along Crooked Creek, in the vicinity of Goodwin's Upper and Lower Mills.

Like elsewhere in South Carolina the economy of Marlboro County was essentially destroyed. Renting and wage labor were the most common forms of black farm labor as late as 1884, although there were about 100 farms comprising 3,000 acres owned by blacks (compared to about 6,000 acres in 200 farms owned by whites) (Anonymous 1884). Significantly, 200 gins, 44 lumber mills, and 16 flour or grist mills were in operation only 20 years after the Civil War.

Col. C.S. McColl established a thriving mercantile business in the 1870s and eventually owned at least nine plantations, including Appin, Dundee, Steward, Islay, Pipkin, Cook, Ervin, Spears, and Cotton Hill. Described as a "100 plow" farm, as late as 1901 he planted 1,600 acres in cotton, 600 acres in corn, and 300 acres in wheat and oats. He produced over 1000 bales of cotton a year and 1100 pounds of cotton seed per acre. Gibson remarks:

> his mill . . . is only 2½ miles west of town, on Crooked Creek, very fine water power, splendid ginnery and corn mill. The pond is well stocked with fish and the numerous ducks afford exhilarating and enjoyable sport (Gibson 1902:21).

McColl's amalgamation of plantations, however, was unusual and most agriculture was conducted by "two, three, or four plows," where the farms are small and largely worked only their owner (Gibson 1902:7).

The number of Marlboro farms operated by owners declined from 818 in 1900 to 697 in 1910 and 454 by 1930, while those operated by tenants increased from 1789 in 1900 to 2974 in 1930. Through this period the number of acres of cotton remained steady

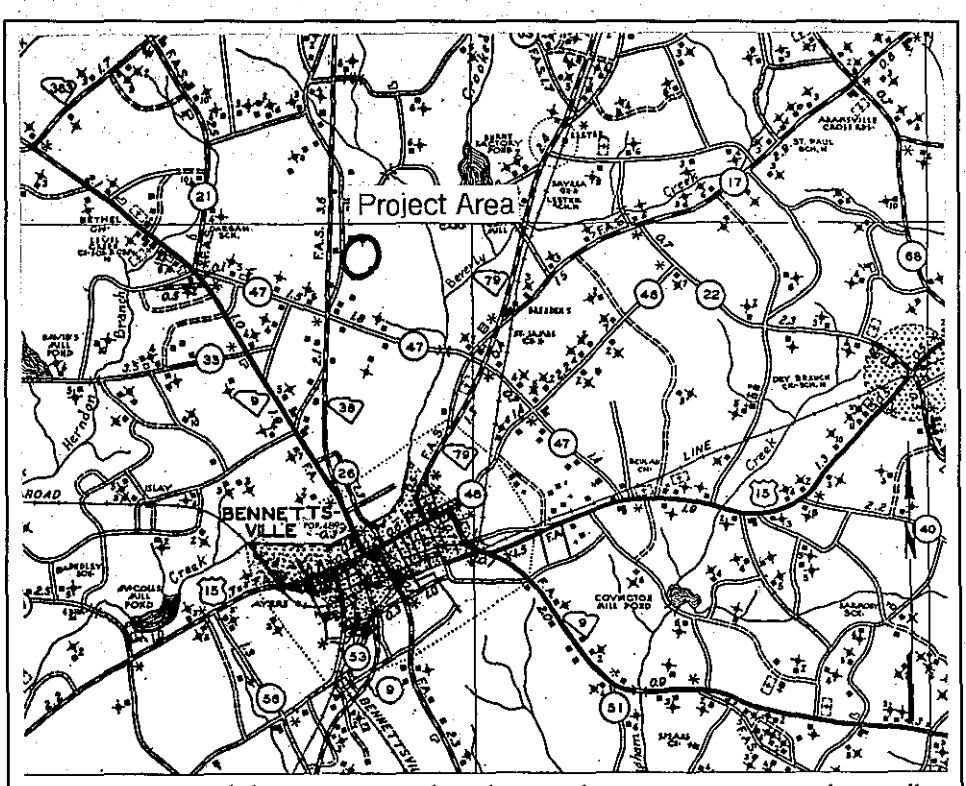

Figure 6. Portion of the 1938 General Highway and Transportation Map for Marlboro County showing the project area.

between 86,000 and 82,000 acres, although the yields fell dramatically from over 74,000 bales to less than 34,000 bales (Thirteenth Census of the United States: 1910 and Fifteenth Census of the United States: 1930). By the early 1960s cotton accounted for only 38,844 acres, while crops such as soybeans, tobacco, and corn became more common (Craft 1965:106).

Figure 6 shows that by 1938 there were a number of farm units in the project area, several with tenant buildings, although none are clearly associated with the survey area.

METHODS AND FINDINGS

Archaeological Field Methods

Normally archaeological investigations use shovel testing at 100 foot intervals on transects spaced every 100 feet. For the substation lot, because of its size, this would have resulted in only nine tests. Although likely adequate, especially considering the good surface visibility at the project site, we chose nevertheless to increase the shovel testing intensity. A series of four transects were laid out at 60 feet intervals along the southern boundary and shovel tests were excavated north along these transects at 50 foot intervals (Figure 7). All soil was screened through ¼ inch mesh, with each test numbered sequentially by transect. Each test measured about 1 foot square and was excavated until clay subsoil was encountered at depths ranging from 0.9 to 1.4 feet. We intended to collect any cultural remains identified, except for mortar, and brick, which would be quantitatively noted in the field and discarded. Notes were maintained for representative profiles.

Should sites (defined by the presence of two or more artifacts from either surface survey or shovel tests within a 25 feet area) be identified, further tests would be used to obtain data on site boundaries, artifact quantity and diversity, site integrity, and temporal affiliation. These tests would be placed at 25 foot intervals in a simple cruciform pattern until two consecutive negative shovel tests were encountered. The information required for completion of South Carolina Institute of Archaeology and Anthropology site forms would be collected and photographs would be taken, if warranted in the opinion of the field investigators.

The field investigations were conducted on

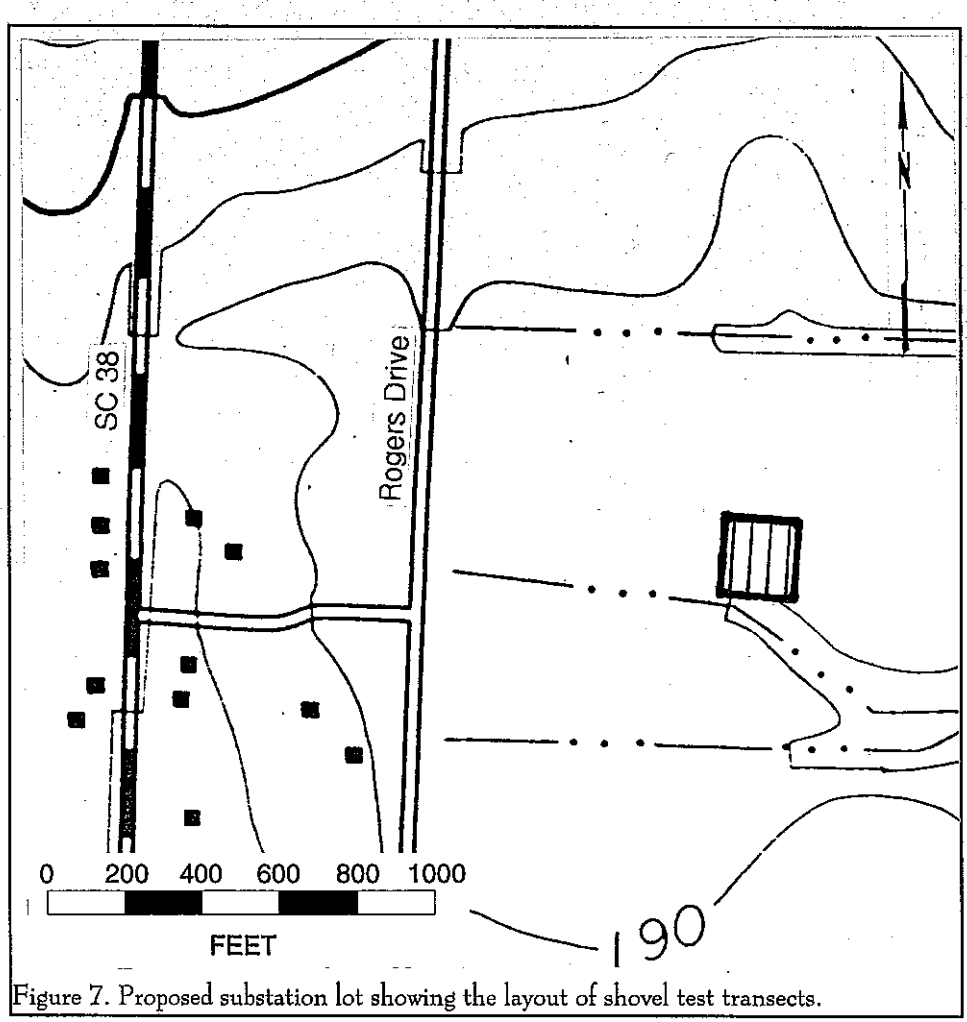

Figure 7. Proposed substation lot showing the layout of shovel test transects.

September 8, 2000 by Dr. Michael Trinkley and Mr. Tom Covington. A total of 20 shovel tests were excavated during this survey.

The field investigation identified Ap horizon soils ranging from dark grayish brown (10YR4/2) to grayish brown (10YR5/2) with depths of 0.9 to 1.3 feet. These soils overlaid mottled sandy clays which ranged from white to tan to yellowish brown. It appears that cultivation has deflated the Dunbar soils in this area.

No archaeological sites were identified during the shovel testing. Nor were any remains found on the surface of the substation lot, which generally exhibited good surface visibility.

Architectural Survey

As previously discussed, we opted to explore an area of potential effect (APE) 1.0 mile in diameter around the survey site, in spite of the extensive development which has already occurred in the immediate project area.

The architectural survey was intended to record buildings, sites, structures, and objects which appeared to have been constructed before 1950. Typical of such projects, this survey would record only those which "have kept their integrity" (Anonymous n.d.:4). For each identified resource a Statewide Survey Site Form would be completed and at least two representative photographs would be taken. Permanent control numbers would then be assigned by the Survey Staff of the S.C. Department of Archives and History at the conclusion of the study. The survey would be conducted by driving the public roads (typically county or state secondary roads) in the

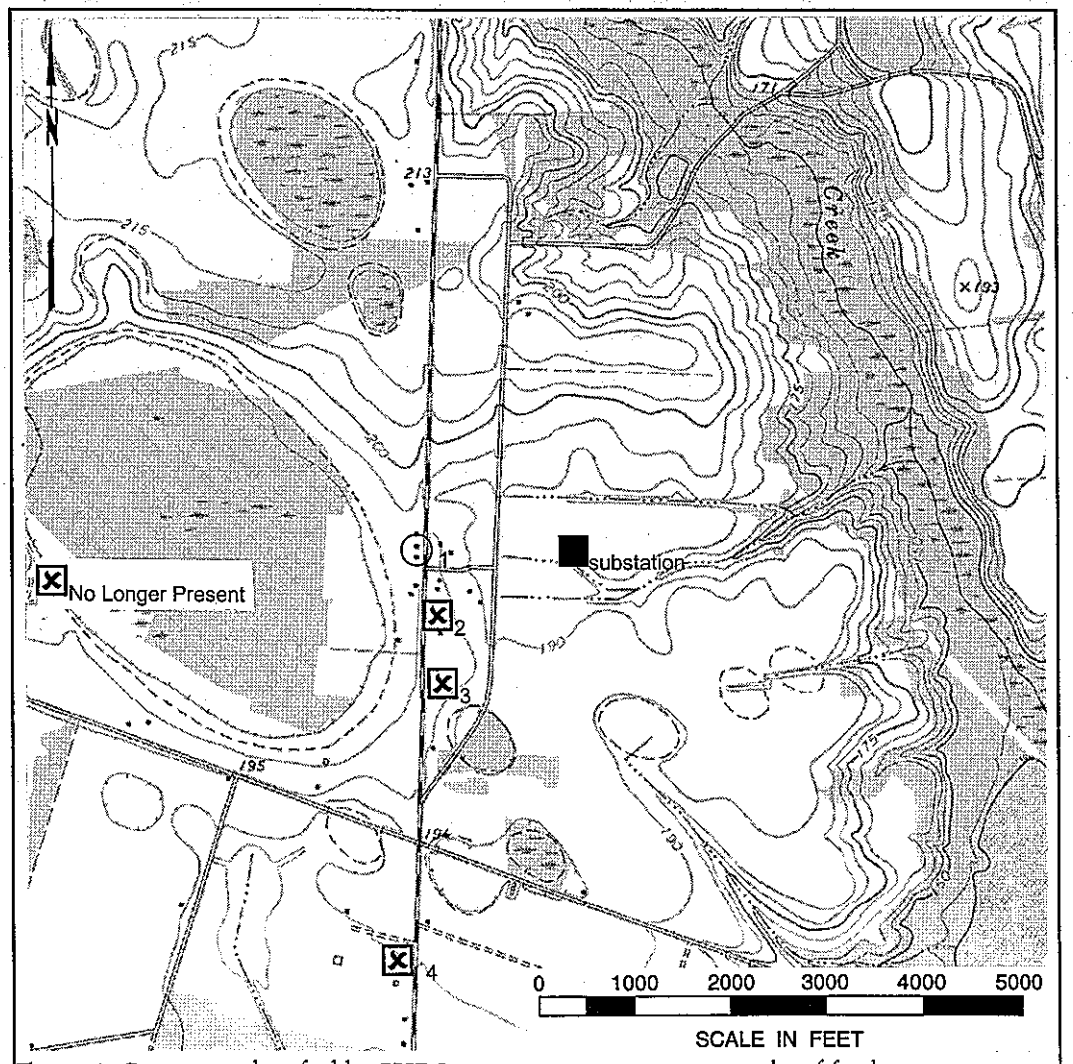

Figure 8. Structures identified by SHPO reconnaissance survey as worthy of further investigation.

APE. These roads included SC 38, as well as several county roads (including Rogers Road on which the substation lot is situated). Special attention was paid to relocating the four structures previously identified by the State Historic Preservation Office as worthy of additional attention (Figure 8).

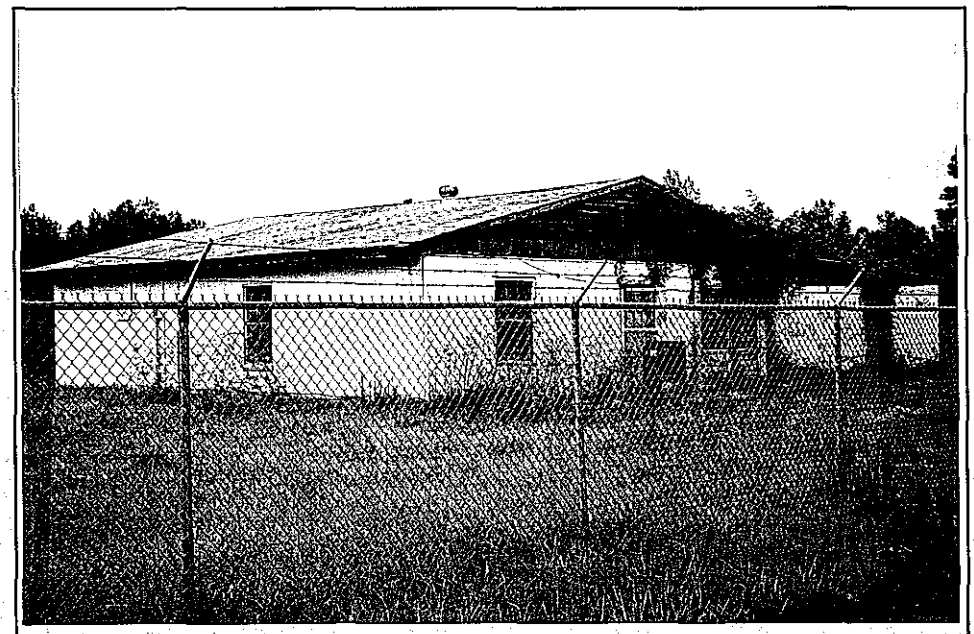

Figure 9. Structure currently found at SHPO location 1.

This survey revealed that three of the four structures identified by the SHPO reconnaissance study are no longer standing. The fourth structure (Figure 9) has either been extensively modified or has been entirely removed. At this location today is a CMU structure with metal sash windows and a lateral gable composition shingled roof. No Statewide Survey Site Form was completed for this structure since it does not appear to be 50 years old. No other historic structures were identified within the APE.

CONCLUSIONS

This study involved the examination of a 1 acre tract situated east of SC 38 and Roger Road north of Bennettsville in central Marlboro County, South Carolina. The tract, situated on a sandy ridge overlooking Lilly Quick Creek to the east, is in an area rapidly being transformed from an agrarian base to one consisting of mixed commercial and industrial tracts. The substation intended to be constructed on this tract will serve those new industrial needs. This research, conducted for the Central Electric Power Cooperative, provides results of the cultural resources investigation and is intended to assist that organization comply with their historic preservation responsibilities.

Historic research reveals that this portion of Marlboro County was settled early in the eighteenth century by small farmers. Considerable industrial activity took place in and around nearby Crooked Creek with the building of a number of small mills and gins. While no Civil War battles were found in this immediate area, Sherman's troops did march through this area and several camps were established nearby. In the postbellum there continued to be large landowners, although a number of small farms were gradually established. Cotton continued to the be primary crop into the mid-twentieth century.

The area has been extensively cultivated and, at the time of this survey, was in soybeans. A series of four transects spaced at 60 foot intervals were used to examine the study tract, with shovel tests being excavated at 50 foot intervals. A total of 20 shovel tests were excavated. The shovel tests revealed generally deflated soils and no archaeological sites were identified on the study tract.

A survey of historic sites was conducted within a 1.0 mile APE. A SHPO reconnaissance level survey had previously identified four sites worthy of additional investigation in the APE. Three of these sites were found to no longer be present and are presumed moved or destroyed. At the fourth site there is a CMU building, although it does not appear to be 50 years old. This may represent a dramatically altered version of the original structure identified by the SHPO, or it may represent a replacement. Regardless, this site was not surveyed because of its recent age. No other structures were found in the APE.

It is possible that archaeological remains may be encountered in the corridor during construction activities. As always, the utility's contractors should be advised to report any discoveries of concentrations of artifacts (such as bottles, ceramics, or projectile points) or brick rubble to the project engineer, who should in turn report the material to the State Historic Preservation Office, or Chicora Foundation (the process of dealing with late discoveries is discussed in 36CFR800.13(b)(3)). No further land altering activities should take place in the vicinity of these discoveries until they have been examined by an archaeologist and, if necessary, have been processed according to 36CFR800.13(b)(3).

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